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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,951	02/18/2004	James R. Easterday	KOL-10-5563-C1	2317

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EXAMINER
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SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/780,951

Applicant(s)

EASTERDAY ET AL.

Examiner

John P. Sheehan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/18/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 to 6 are rejected under 35 U.S.C. 102(b) as anticipated by Beyer et al. (Beyer, US Patent No. 4,019,928, cited in the IDS submitted February 18, 2004).

Beyer teaches the claimed composition for treating steel parts wherein the composition comprises the claimed alkali metal cyanates and alkali (i.e. sodium and potassium) carbonate, including a range that encompasses the range of cyanate recited in applicants' claims 1 to 5 (column 2, lines 34 to 43). Beyer also teaches the claimed ratio of potassium to sodium recited in applicants' claim 6 (column 2, lines 44 to 50). The claims do not distinguish over Beyer.

With respect to the claim language, "wherein the composition is molten and homogenous at temperatures between 750<sup>0</sup>F and 950<sup>0</sup>F", it is the Examiner's position that this is an inherent property of the claimed composition, in that applicants, when adding this language to the claims in applicants' parent application (10/002282) acknowledged that this is an inherent property of the claimed composition.

Claim I has been amended to state certain inherent properties of the composition, the amendments are not made to change the scope of the claims. (see the

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parent application, the response submitted September 17, 2003, page 5, paragraph 2, lines 1 and 2)

3. Claims 1 to 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaucher et al. (Gaucher, US Patent No. 3,912,547, cited in the IDS submitted February 18, 2004).

Gaucher teaches a specific embodiment of the claimed composition for treating steel parts wherein the composition comprises the claimed alkali metal cyanates and alkali (i.e. sodium and potassium) carbonate, wherein the cyanate concentration and the alkali metal ratio are encompassed by the ranges recited in applicants' claims 1 to 6 (e.g. column 6, Example V). The claims do not distinguish over the teachings of Gaucher.

Again, with respect to the claim language, "wherein the composition is molten and homogenous at temperatures between 750°F and 950°F", it is the Examiner's position that this is an inherent property of the claimed composition, in that applicants, when adding this language to the claims in applicants' parent application (10/002282) acknowledged that this is an inherent property of the claimed composition.

Claim I has been amended to state certain inherent properties of the composition, the amendments are not made to change the scope of the claims. (see the parent application, the response submitted September 17, 2003, page 5, paragraph 2, lines 1 and 2)

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Beyer or Gaucher each taken view of each of Blas et al. (Blas, US Patent No. 4,184,899, cited in the IDS submitted February 18, 200) or Caubet (US Patent NO. 3,321,338, cited in the IDS submitted February 18, 2004).

As set forth above in the rejections under 35 USC 102(b) Beyer and Gaucher each teach the composition recited in applicants' process claims 7 to 14.

Beyer teaches that the process of nitriding with a fused bath takes place on ferrous metals (e.g. steel), wherein the temperature is from 500 to 650°C (932 to 1202°F) (column 2, lines 59 to 63), which overlaps the temperature range recited in applicants' claims 7 and 14.

Gaucher teaches that the process of nitriding with a fused bath takes place on ferrous metals (e.g. steel), wherein the temperature is from 450 to 600°C (842 to 1112°F) (column 1, lines 5 to 10 and column 4, lines 55 to 60), which overlaps the temperature range recited in claims applicants' 7 and 14.

Blas and Caubet teach that stainless steel, including austenitic stainless steel can be nitrided by using a fused bath containing cyanate and alkali carbonate in order to increase the wear resistance of the stainless steel (Blas, column 1, lines 7 to 9 and 15 to 16; column 2, lines 20 to 28 and Table 1; and Caubet, column 1, lines 26 to 35 and 50 to 57).

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Each of Beyer and Gaucher differ from the claims in that Beyer and Gaucher do not teach the exact temperature range or the workpiece as being stainless steel.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the temperature range of the fused bath at immersion taught by each of Blas and Caubet overlaps the instantly temperature range and therefore each of Blas and Caubet is considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

With respect to the use of stainless steel, one of ordinary skill in the art would have found the invention to have been obvious because one of ordinary skill in the art would have considered Beyer's and Gaucher's disclosures regarding steel to encompass stainless steel and would have been motivated to treat stainless steel to increase wear resistance as taught by each of Blas and Caubet.

***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 to 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,746,546. Although the conflicting claims are not identical, they are not patentably distinct from each other because the composition recited in claims process claims 1 and 2 of '546 is the same composition as is recited in composition claims 1 to 6 of the instant application. The method recited in claims 1 and 2 of '546 and the method recited in applicants process claims 7 to 14 differ in that the recited temperature ranges in these two sets of claims are not the same but rather overlap.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the temperature range recited in claims 1 and 2 of '546 overlap the temperature range recited in applicants' claims 7 to 14 and therefore is considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any

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portion of the disclosed ranges including the instantly claimed range from the claimed range in claims 1 and 2 of '546,

"The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).


Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John P. Sheehan  
Primary Examiner  
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